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AFFILIATED
CLUB



AMATEUR RADIO
STATION W60TX

VOL. XIX

1975

PAARA GRAPHS

PALO ALTO AMATEUR RADIO ASSOCIATION, INC.

MENLO PARK CIVIL DEFENSE RADIO CLUB, K6YQT

May 75

OUR NEXT MEETING: will be on Friday, May 2, 1975, in the beautiful and world-renowned Menlo Park Recreation center, near the Police Dept. for your greater safety and mental relaxation. Meeting will start at 7:30 PM, not one (1) minute too soon.

THE PROGRAM: is Mars -- the planet, not the military radio system. Yes, we've got Bob Tucker speaking and showing pictures on all the Martian photographic missions, with Hot Scoops on the up-and-coming Martian landings. How it's done, and what we learn from this fascinating NASA-funded research will be presented along with a short film, slides, and 100% juicy eight-by-ten glossies. Come and learn about this very recent extraterrestrial research.

Coffee Cookies Tea Goodies Raffle Eyeball QSO's.
Bring the wife and get "spaced-out"!

THE PAARA BOARD OF DIRECTORS WILL MEET on Wednesday, as usual, on the 7th of May (ah, those Seven Days in May...), at 7:31 $\frac{1}{2}$ PM sharp local time. Meeting place is the scrungy, semi-dilapidated, cheerily-rusted W6OTX Trailer. It's location is more or less in the SRI parking lot, 333 Ravenswood Avenue, Menlo Park. Come and poke your finger in PAARA's precious pie.

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EVERY TIME I mention the PAARA NET in this regal rag I have to make up something Terribly Clever to seduce (?) more people to get on our lovely net. The solution to this problem is for everyone to make the Big Effort and join in on the fun every Monday night on 145.24 mega-Hertz, at around 8:07 PM. If every member puts in their aural two (2) bits (25¢) then I won't have to keep prodding you into making your appearance on our net. Clear? If not, send 63¢ or a corned beef sandwich (no pickles, please) for a lucid and to-the-point explanation of the above.

-----*****-----

The AARL Pacific Division Convention will be May 2-4 at the Sheraton Hotel in Fresno. Lots of good stuff planned for programs, etc. Should be quite a Boffo Bash.

PAARA PICKIN'S --- ADS, GONK

FOR SALE, Make Offer:

Swan 500 CX, with AC Power Supply and speaker, Shure EM-28A Mike, all like new, just checked out at factory. Hi-Gain 5-BTQ Antenna, 80-10 meter vertical. Phone Patch, Mobile Mike, Drake Low Pass Filter, Heath Grid-dipper still in box, Heath IM-17 VOM (solid state) pluss other good stuff. Make offer or trade. CALL Al Doty, W6GAQ, 327-8207 for a fine buy on ham gear.

PAARA Welcomes its two new members:

-Thomas L. Scherp, K6JBR, 411 S. 5th Avenue, Redwood city, 94063.....365-3929.

-John K.D. Lazier, 950 Balir Court, Palo Alto, Ca. 94303, W6HBJ, 326-0594.

Welcome to our club--hope you both have fun in PAARA. Our eagle-eyed treasurer, Paul W6QBY also reports that K6QOM and W6OEB have paid their dues for 1975. Tnx!

.....*****.....

Did you know that Menlo Park (home of K6YQT) has a Sister City located in EI land? If you don't recognize that prefix, it's just about 53° N. 9° W. And if you unabashedly admit that you don't know where that is either, (what is the world coming to??) try Galway, Ireland! de Ed W6AIN

-----*****

The Electronics Museum Amateur Radio Club, WB6WSL, is having their Ham Flea Market, on Saturday, May 31, 1975, in the Foothills parking lot T by the Museum. The College is located off Highway 280, in Los Altos Hills. The Flea market opens to sellers at the unfathomable hour of 8 A.M., and buyers may come and snoop around at 9:30 AM. It costs \$3.50 for two parking stalls (one for your car and one for your gonk), and food will be available. Electronics only.

The Foothills Amateur Radio Society has its annual and well-known Homebrew Contest on April 25. For more info, get in touch with Jerry Holter, W6OCP.

*****-----*****

PAARA GIVES YOU THE MOST FOR YOUR FUN!

5

MINUTES OF THE BOARD MEETING OF APRIL 9, 1975. de W6DEF.

Present were Steve, K6FS; Ed, W6AIN; Andy, VE3FZK/W6;
Terry Conboy WB6GRZ, Paul W6QBY, Fred K6YT, Hal W6DEF.

Discussion: Preliminary plans for Field Day and discussions of antenna installations. Two points will be given for each CW contact this time so we will try to get two CW stations on the air this year. We will also have two SSB stations as usual and the infamous and clicky (but admirable) Novice station. Anyone interested in being a Captain, operator, logger, or antenna/tent-putter-upper (beautiful English, eh?) is asked to volunteer to Fred K6YT at an early date. An attempt will be made to work OSCAR during the 24 hour period. (It might even work if Andy isn't there...). The PAARA group won the CCRC plaque once, the Foothill club twice, and San Carlos once. June 28 and 29 will be the time when PAARA wins it again!

On Saturday May 17th there will be a Walkathon "A Walk for Mankind", sponsored by the Interplast organization. If they ask us for communications links we will be asking for volunteers....listen to the PAARA net for the latest info or call Hal.

The Annual Fourth of July Parade in Redwood city is the next big thing to plan for and think about. The past few years has seen the combined efforts of the Menlo Park CD club and the Redwood city Disaster Communications System working to provide valuable communications for this truly grand parade. It's a lot of fun to operate during the event (if you can keep your eyeballs off all the Sweet Young Things wandering about) as Ye Noble Editor will attest.

The first Friday in July is the 4th so we will have our meeting on the following Friday night, the 11th.

---loosely and liberally edited from Hal's notes.

*****-----*****

Class E CB has been tabled! Yes, in view of the fact that the FCC has proposals like expansion of present CB and the Docket 20282 (restructuring) the FCC decided to put the whole mess aside for reconsideration. As I always say, procrastination gets you everywhere....

ANONYMOUS, PREPOSTEROUS ARTICLE DEPARTMENT.....

Yes, it seems that PARAGRAPHS is slated for the Sad Fate of having it's main contributors remain anonymous. This article may raise a few eyebrows and if it does it will certainly do more than 99 and 44/100ths % of the other articles in this paper. See how self-critical I am? At any rate, it just may tickle your funny bone, which is, I suspect, its intent....

GOING....GOING....GONE

The Midwest Farm Auction has been given adequate literary attention. Most of our members can even remember the depression-inspired breakup of the large Peninsula estates, those genuine social events which Atherton and Hillborough auctions became in the 1930's, with the urbane Fred Butterfield soliciting his bids from a thousand parasoled ladies, sitting and chattering out a summer afternoon on portable lawn chairs as the possessions of the late departed or late deflated rich were knocked down piece by piece.

But no one has recored the history of that wild sub-sub-culture of another extraordinary sub-culture, ham radio itself: the ham auction, the flea market, the white elephant sale.

The sales themselves have distinct personalities quite apart but probably influenced by the character of the sponsoring clubs, their members, and even the auctioneer himself.

The SPARKS auction at Philco-Ford is, of course, the west Bay extravaganza. No other event can equal the size of the audience, the variety of gear, the dollar volume. But it's a cold affair, really. The PA system always goes into a distorted decline. Dealers slink in and around the bidding area, and with covert little nods to the auctioneer, bid up anything which is a real bargain. You can spot these fellows if you try: furtive eyes close set over an elongated schnozz, suspicious demeanor. Five hundred potential bidders eye the gear with pessimistic faces; most go home unfulfilled.

But the CARC auction is nothing like this...in fact it's
con't next page...

GOING* GOING * GONE con't....

like nothing else either. Held in W6QIE's private shack which looks and smells like an old Navy Barracks (and reportedly really is a transport from Tanforan), the coffee urn bubbling; fifty laughing hams crushed into the space for 30; this is a happy event. The bargains are fantastic, the top bids rock bottom. But the items are limited and strongly laced with essence of surplus-surplus: large, heavy, ugly, gray merchandise of obvious heritage. And of course the audience was pre-conditioned for this. En route to the shack had they not picked their footsteps among huge Navy linears, fire control units, gray radar gear, all out in the field with the last rain still dripping from their innards. So the CARC auction soon became a social event: the bidding is ignored and an increasing buzz of conversation around the potent navy coffee urn makes it an occasion for old friends to join in an eyeball QSO.

The Hayward Radio Club auction is quite a different affair. The discordant banging and eardrum-traumatic gawelling by Auctioneer Larry (W6....) is thankfully missing. In contrast, the Hayward auctioneer is business-like and quick. "Ha, that'll learn you" he sneers at our own Rick (WA6NCX) who finds his facetious 25% bid for a 1935 Navy receiver was immediately accepted. Rick makes ridiculous opening bids on 10% of the items, but his native caution never lets him increase them beyond the price he can get from a local metal salvage yard. The Hayward group -- of 75 or so -- know what they want; the bidding is brisk, the merchandise not too bad, the items knocked down quickly. The air is friendly (if a little murky) and the group congenial. It is just as well. Seventy-five bodies jammed into the Hayward Clubhouse had better be congenial. Hank (W6GXN, inventor of the dynistor) is there with his surplus racks and clock radios -- it hurts to see him wince as that impatient auctioneer knocks them down for only \$2 each. But the hurt doesn't last long; we know that Hank is wealthy from his promotions of the
(bid on over to the next pg...)

GOING--GOING--GONE con't,....

dynistor (see Ham Radio, April 1968)

We are not preserved from the inevitable and very tired jokes in which all auctioneers indulge -- "boat anchors" is the perennial theme. The next reference to this by a gavel monger merris his encasement in concrete for a Mafia heave-ho off the Dumbarton, and that will be the best and last "boat anchor" story.

We did miss those perennial auction-goers, Fred K6YT whose dour mutter ("bunch of junk") punctuates all the bids, and is contradicted only by the twinkle in his eye and the pieces of junk he hauls home... and WA6ROM, our beloved and dedicated Sy, when he stands up to examine the items being auctioned, lets all of us know it must be yet another Two-er. Sy has cornered the market in Two-ers and has reportedly garnered 19 of them in the last 19 months. The rumor is that his new public presentation will be "The Other Side of the Two-er" in which he will show how 18 of his gems in parallel (transmit mode) will emit a bodacious 2 meter signal, A.M. of course, and in push-pull (receive mode) my improve selectivity enough to permit hearing three instead of two signals on the band. Another rumor: That Benton Harbour Lunchbox #19 will be pictured in the NASA centrifuge, a delicate civilian application of a space gadget (instant conversion of a Two-er to solid-state).

But we digress, and have forgotten the Oakland Radio Club "White Elephant Sale", a euphemism to disguise the operation. Now this again is a very different affair. In the basement of a Red Cross unit halfway from Fruitvale to eternity, this one had the oldest, most decrepid and useless items of the year. Most of the local attendees were obvious two-letter call-holders -- originals, not the ersatz \$25 counterfeits (sorry, Fred). An ominous note was the presence of a man of the cloth, not a bidder obviously, but the Chaplain of the Club, we presume, ready on the moment to give the last rites on the passing of a charter member.

Their auctioneer was different, too. Intense, a one-foot
(Finally flung to the next page....)

GOING GOING GONE conclusion....

then another fellow, toutin' items in fulsome detail, repeating the bids slowly, loudly and savoring every moment of his limelight; this was gross over-sell for and event in which bids were excruciatingly cautious, raises 25¢ and sometimes 10¢ at a crack.

Which leads us to the PAARA auction. Surely this is the best of all worlds. A large and friendly crowd. A comfortable arena. Bob W6BFH and Ed W6AIN issuing the best of refreshments. An efficient money-changing department, thanks to Paul W6QBY and his financial crew. The year's largest flea-market for the fin-gerers and ponderers; a big lot of miscellaneous electronics for the plungers in the bidding.

And let's keep our own favourite auctioneer, the very urbane Jerry WA6LIJ and his international stand-in -- the irrepressible Andy (VE3FZK stroke W6). And some day, some time, we'll be able to get that SB-101 for a \$45 bid, or even outbid Sy on a \$10 Two-er.

(Ed. note: I hope everyone connected with the above takes its commentary with a pinch of salt and a smile... after all, even Yours Noble and Truly is jabbed at!)

COMMENTS WELCOME!!!

*****-----*****

TERRY'S TIMELY TECHNICAL TOPICS de WB6GRZ

The average SSB transceiver is worthless on CW. Having established that fact, many of you will say "So What?". If you did, you may ignore the rest of this.

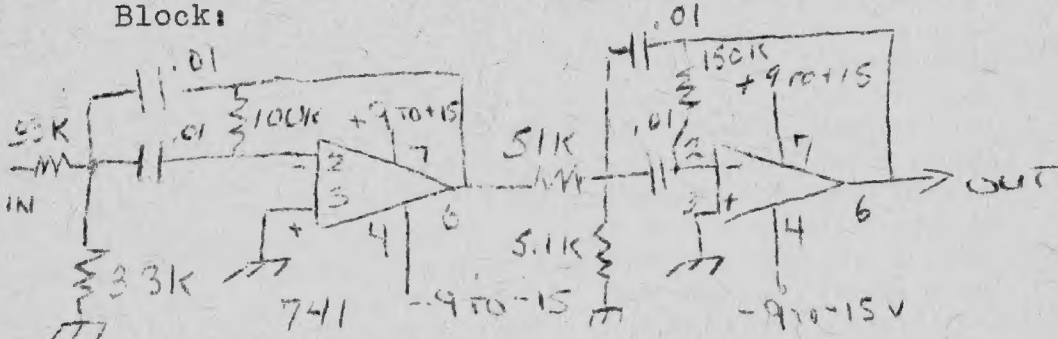
The biggest problem is receiver selectivity. Some rigs have provision for extra filters (at extra cost, of course) that work fine, but audio filters have advantages over I.F. extal jobs. Noise (wideband) is generated in most rcvr audio stages as well as various distortions. The audio filter removes both, along with undesired signals.

MFJ enterprises makes a nice unit using op amp active filters. The disadvantages of it are price (\$15-\$24), cascaded single pole design, and too narrow a bandwidth (180-80 Hz). The narrow bandpass makes the CW keying sound soft and makes all noise burst ping at the center frequency of the filter. (cont next pg)...

Tech Topics con't.....

Empirically, the 6 dB bandwidth should be no less than 350 Hz and the skirts should be as steep as possible. This gives about 3 ms. rise-fall time and more than adequate selectivity.

Here is a basic Butterworth two pole-pair filter building Block:



The first section has $Q = 2.9$ and a center $f = 918$ Hz.

The second	"	"	"	2.9	"	603 Hz.
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Overall bandwidth is 400 Hz (3 dB) and 525 Hz (6 dB), $f=770$.

Up to 3 pairs may be connected in series to improve the skirt selectivity and to narrow the bandwidth somewhat:

PAIRS	f_o	3dB BW	6dB BW	20dB	40dB	60dB
1	770 Hz	400	525	1280	2740	5200
2	770	320	400	740	1280	1930
3	770	285	350	580	905	1280

This means that signals at 360 Hz and 1640 Hz will be attenuated by 60 dB with 3 pairs of resonators.

One pair is probably not much help, but two pairs are good and three are worth adding to a receiver that already has fair selectivity to give outstanding performance.

Use 5% or better resistors and 10% or better capacitors with mylar or polystyrene dielectric. Ceramics and tantalums drift too much. Op amps are standard 741's or use 5558 duals (different pinouts). Current drain is less than 3 ma per op amp, overall gain near unity. The op amp will drive 600 ohm or higher phones directly (you do use cans on CW don't you?). I have a 3-pair filter with a 2 watt audio amp following it that I wouldn't be without.

(filtered on to next page.....)

FILTER FUN (con't)...

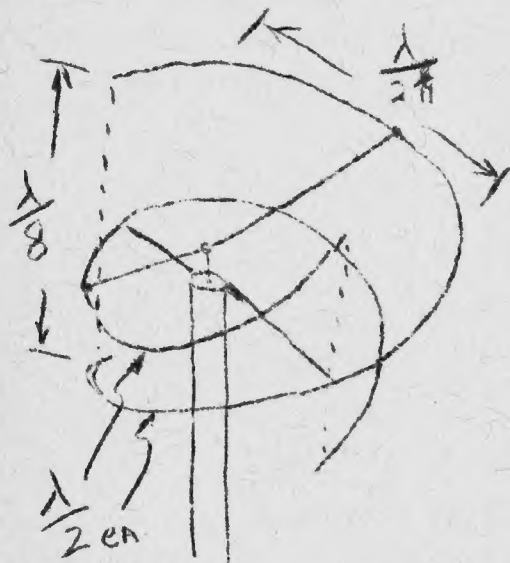
11

Increasing all resistors or capacitors by 20% moves the center freq. to 925 Hz. Decreasing the R's or C's by 20% moves f_0 to 640 Hz.

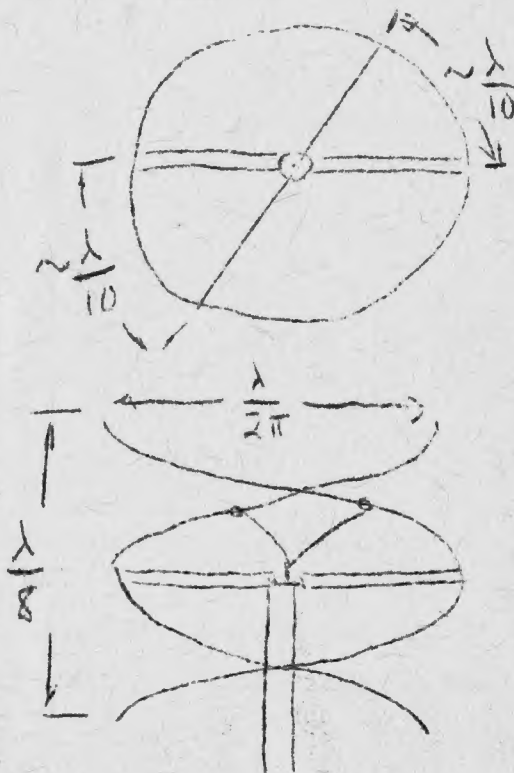
Get on CW and get some practice for operation during Field Day!

P.S. I hope somebody is building these circuits and Gonk I've been flapping about. Let me know (even your failures are educational). Phone 591-8461 ext. 517 days, and 364-3107 at home. Thanks Terry!

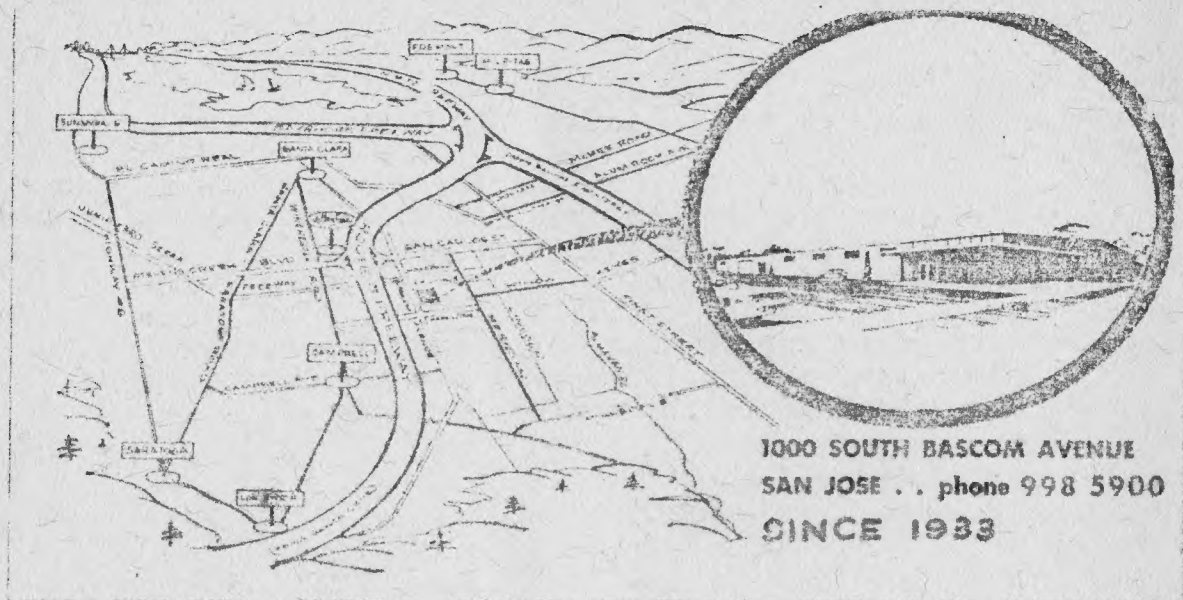
Here's the drawings of that Screwey Antenna Terry told us about last issue....hope you can make head and/or tail about ye editor's noble artwork....



WEIRD, EH?

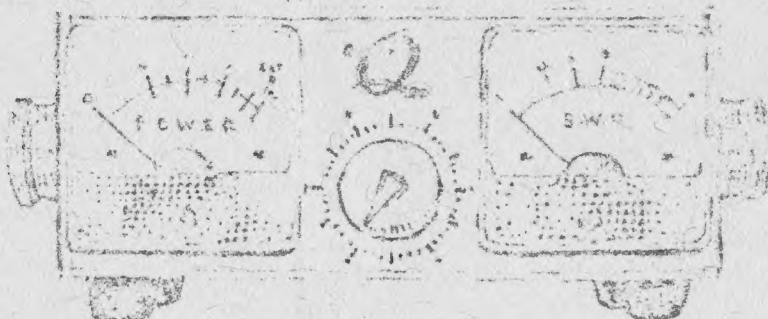


This issue typed till the wee hours of the morning on Friday night, April 18, whilst listening to Tchaikovsky and Beethoven, and savouring every moment of it.



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